UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON. D.C. 20460

APR 25 1996

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Ms. Jane M. Williams
Desert Citizens Against Pollution
3813 50th Street West
Rosamond, CA 93560

Dear Ms. Williams:

This is in response to your letter of March 17, 1996, in which you ask several questions about EPA's implementation of its Hazardous Waste Minimization and Combustion Strategy and its Hazardous Waste Minimization National Plan. We appreciate your continued interest in these very important areas, and have provided responses below that are numbered to match the questions in your letter.

1. EPA uses results of the Toxics Release Inventory (TRI) to track emissions of the seventeen 33/50 chemicals. 1993 TRI data on emissions of the seventeen chemicals covered under the 33/50 Program show a 46% reduction in emissions since 1988, the baseline year. However, TRI reports for 1995 will not be available for review until 1997. Nevertheless, the 46% reduction already accomplished by 1993 suggests that, once the latest data is fully compiled and analyzed, the 1995 target of 50% reduction will likely be achieved.

2. Two Strategy Updates have been published since the first issue in September 1994. These Strategy Updates contain information on EPA's progress on waste minimization and combustion. The two latest issues, January 1995 and March 1996, are enclosed. We have also placed you on the mailing list for future issues.

3. Neither the Draft Combustion Strategy (May 1993) nor the final version of EPA's Combustion Strategy (November 1994) created, in fact, a "moratorium" on new incinerators or other hazardous waste combustors. Rather, EPA oriented its permitting priorities to give the most emphasis to bringing existing facilities under final permits, rather than spending resources on applications to bring additional hazardous waste combustion capacity on-line. At the same time, it appears that economic market conditions and other factors may have influenced companies to refrain from filing many permit applications for new facilities. The overall result has been that virtually no new hazardous waste combustion capacity has been added nationally over the past several years. EPA's policy continues to be to give priority to

the final permitting of existing facilities.

With respect to the issue of a moratorium on combustion facility permitting, we note that as we move towards a greater realization of promise of waste minimization, the nation will continue to produce some wastes that, from a technical standpoint, are best managed by combustion, at least given the suite of technologies available today. We therefore believe that, for the foreseeable future, some combustion capacity will be needed. However, it is also evident that an overly large surplus of capacity has adverse consequences both for industry as we!! for other parties. For example, it can act as a significant disincentive for waste minimization. Finally, it appears that some incinerators will be needed for ongoing cleanups at Superfund and other sites. Incineration in such situations may be the best alternative for reducing, the toxicity of, and exposures to, the contaminated materials.

Even if the promise of waste minimization is realized, thermal treatment technologies may still be needed to address the legacy of past, misguided waste management practices.

4. Continuous emissions monitoring systems (CEMS) are part of the recent proposed rule to set national emission standards for hazardous waste incinerators, as well as for cement kilns and lightweight aggregate kilns that bum hazardous waste. In that proposed rule, we indicate an intention to adopt requirements for mercury and particulate matter CEMS (in addition to the others currently required at boilers and industrial furnaces that bum hazardous waste).

This proposed rule was published in the Federal Register on April 19, 1996. It is also available via the Internet at www.epa.gov/epaoswer/cmbust.htm, or via EPA's CLU-IN bulletin board (modem access (301) 589-8366).

As discussed in detail in the proposed rule, EPA has made progress determining the state of the art for the major types of CEMS. The bullets below summarize EPA's current understanding and any testing that is planned.

Multi metals (MM), MM CEMS are still in the research phase of development. EPA and DOE jointly conducted testing of MM CEMS last year. This test concluded that MM CEMS are still a few years away from being practical for use as a compliance device. This obviously reflects a different timetable for practical availability of MM CEMS than was predicted during discussions at the National Roundtable in 1994.

Particulate Matter (PM). PM CEMS are sold in the U.S. and are used as a compliance tool in Germany and other European countries. EPA plans to test PM CEMS starting in June or July 1996. The testing will address two issues: ensuring that the CEMS can meet our proposed performance specifications; and testing the endurance of these

devices.

Testing will end after six months to one year. We anticipate that the results of such testing will be used in developing the final emission standards regulations for hazardous waste combustors.

Mercury (Hg). Both elemental and total mercury CEMS are sold in the U.S. Elemental Hg CEMS measure metallic mercury only. Total Hg CEMS measure all species of mercury: metallic and mercury salts. Both types have been certified for use in Germany.

EPA plans to test total mercury CEMS starting in June or July 1996. The testing will address two issues: ensuring that the CEMS can meet our proposed performance specifications; and testing the endurance of these devices. Testing will end after six months to one year. EPA does not plan to test an elemental mercury CEMS for reasons described in the preamble of the recently proposed rule, primarily because it would not eliminate the need to also monitor mercury salts. Again, we anticipate that the results of such testing will be used in developing the final emission standards regulations for hazardous waste combustors.

Hydrochloric acid (HCI). HCI CEMS have been installed on some permitted municipal waste combustors for ten to twenty years. The Agency believes these CEMS are readily available, proven compliance devices. As a result, EPA has no reason itself to conduct further testing of these devices.

Chlorine gas (Cl2). Cl, CEMS are a new technology, recently approved for use in Germany. One company is currently marketing a Cl, CEMS in the U.S. EPA does not plan to test this CEM for reasons explained in the preamble of the recently proposed rule, primarily because of the possibly more cost-effective approach of using only an HCI CEM.

5. EPA has released several documents relating to dioxin and furan formation mechanisms and control alternatives in combustion systems. I have included two journal articles and a conference paper that may be of interest to you. One article discusses the effect of combustion- and sorbent injection-related parameters on the mechanism of dioxin/furan formation and prevention in waste combustors. The second article examines the effect of sulfur dioxide on the formation mechanism of dioxins and furans. The final paper discusses dioxin formation and control technologies from municipal waste combustors. EPA also conducted pilot-scale research in 1995 to determine how various kiln operating parameters affect formation of dioxin/furans and investigated how formation-prevention and control can be effected by additives or inhibitors. A paper has not been finalized for this effort, and I would be happy to send you a copy once it is completed.

In addition, as noted above, EPA recently proposed revised standards for hazardous waste combustion facilities on March 19, 1996. The proposal and supporting technical background documents discuss various approaches to limit dioxin formation and techniques to remove it from combustion flue gas. I have enclosed a fact sheet on the proposed rule summarizing the proposal and providing you with additional information on how to obtain the proposal and supporting documents.

I trust that this information will satisfactorily respond to your questions. If it does not, please feel free to call me (202-260-4627) or my staff. The staff contact is Fred Chanania, who can be reached at 703-308-8420. Thank you for your continued interest in these very important issues.

Enclosures

Sincerely yours,

Michael Shapiro, Director
Office of Solid Waste

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Mr. Mike Shapiro
Director. EPA Office of Solid Waste
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March 17, 1996

Dear Mr. Shapiro,

Allow me to forward to you my cordial greetings. It has been almost two years since we met in San Francisco during the National Roundtable on Hazardous Waste Minimization and Combustion. Subsequent to that process, the EPA moved forward with its National Plan and its Combustion Strategy. In conjunction with this initiative I have a few questions

1. Has the EPA met its goal under the 33/50 program of a 50% reduction in the 17 priority emissions identified by the EPA by 1995?

2. Since September 1994 have you published any more Strategy Updates informing the public of your progress on the Hazardous Waste Minimization and Combustion Activities?

3. Is the moratorium on hazardous waste incinerators still in effect? If not, when was the moratorium lifted?

4. What progress has been made in the development of continuous emissions monitors (CEMs)? At one point the EPA stated the metal CEM developers would have progressed to full scale, long-term testing by the summer of 1995. Has such testing taken place; what were the results?

5. Has the EPA's Air & Energy Engineering Research Laboratory released a report yet on dioxin/furan formation mechanisms and control alternatives?

I thank you for answering these queries for me and appreciate the time involved. Rest assured that the information which I receive from this query will be shared with my colleagues at other public interest organizations from across the, country interested about the Hazardous Waste and Combustion Strategy, relieving you of the burden of many dupliciative inquiries. Thank you for dedication as a public servant and your

kind attention to this matter. Please don't hesitate to contact me with any questions or concerns about this inquiry.

Cordially,

Jane Melanie Williams